Journal of geology. Chicago. v. 31. April–May, 1923.
Chamberlin, T. C. A venerable climatic fallacy. p. 179–191.

Meteorological magazine. London. v. 58. May, 1923.
Bilham, E. G. The line squall of February 21st, 1923. p. 77–80.
Botley, Cicely M. Meteorology and folklore: The aurora polaris. p. 87–88.
Brunt, D. Two unusual pilot balloon trajectories. p. 80–83.
Spence, M. T. Light in the sea. p. 73–77.

Nature. London. v. 111. May 19, 1923.
Banerji, S. K. Vertical change of wind and tropical cyclones. p. 668–669.

Nature. Paris. 51. année. 19 mai 1923.
Boyer, Jacques. La prévision du temps par les parasites atmosphériques. p. 305–307.

Naturforschende Gesellshaft in Zürich. Vierteljahrsschrift. Zürich. 67. Jahrg. 1922.
Billwiller, R. Der Firnzuwachs pro 1920/21 in einigen schweizerischen Firngebieten. p. 20–29. (1. & 2. H.) p. 388–393. (3. & 4. H.)

Paris. Services techniques d'hygiène. Annales. t. 3. 1922.
Gambier, R. Pierre Miquel. (1850–1922.) p. 1–4. [With portrait.] [Obituary.]

Philosophical magazine. London. v. 45. May, 1923.
Watt, R. A. Watson. Directional observations of atmospherics, 1916–1920. p. 1010–1026.

Reale accademia dei Lincei. Atti. Roma. (5) Rendiconti. v. 32. fasc. 5. 1923.
Agamennone, G. Il notevole telesismo del 3 febbraio 1923. p. 228–230.

Revue générale des sciences. Paris. 34. année. 30 avril 1923.
Guilbert, Gabriel. Succession nuageuse ou système nuageux. p. 235–238.

Royal meteorological society. Quarterly journal. London. v. 49. January 1923.
Algué, José. The Manila typhoon of May 23, 1922. p. 21–22.
Altberg, W. J. Anchor-ice. p. 54. [Abstract.]
Altberg, W. J. On the cause of the formation of ice at the bottom of rivers and lakes. p. 54–59.
Cave, C. J. P. Winter thunderstorms in the British islands. p. 43–53.
Cave, C. J. P., & Watt, R. A. Watson. The study of radiotelegraphic atmospherics in relation to meteorology. p. 35–42.
Clarke, G. A. Some examples of cirro-macula cloud. p. 3–5.
Dr. C. G. Knott, D. Sc., LL. D., F. R. S. p. 60–61. [Obituary.]
Geddes, A. E. M. Some notes on atmospheric turbulence. p. 1–2.
Goldie, A. H. R. Circumstances determining the distribution of temperature in the upper air under conditions of high and low barometric pressure. p. 6–20.
Mr. Leslie Stuart Priestley, B. A. p. 61. [Obituary.]
Richardson, Lewis F. Wind above the night-calm at Benson at 7 a. m. Long. 1° 6′ W., Lat. 51° 37′ N. p. 34.
Row, D. E. Forecasting sky-types. p. 53.
Shaw, Napier. The meteorological section of the International geodetic and geophysical union. p. 23–33.

Science. New York. v. 57. May 25, 1923.
Sanford, Fernando. On an apparent effect of the sun's electrical charge on the yearly variation of atmospheric potential gradient. p. 616–618.

Sociedad astronómica de España y América. Revista. Barcelona. Año 13. Marzo–Abril 1923.
Selga, Miguel. El simpiezómetro. p. 23–29.

Sociedad científica "Antonio Alzate." Memorias y revista. México. Tomo 41. Núms. 2 y 3.
López, Elpidio. Determinación de la constante psicrométrica en el Valle de México. p. 151–158.
López, Elpidio. Estudio sobre "nortes." p. 91–108.

South African irrigation department magazine. Pretoria. v. 2. January, 1923.
Combined anemo-biagraph at Brooklyn, Pretoria. p. 44–46.
Cox, G. W. Upper air research. p. 24–27.

SOLAR OBSERVATIONS.

SOLAR AND SKY RADIATION MEASUREMENTS DURING MAY, 1923.

By HERBERT H. KIMBALL, In Charge, Solar Radiation Investigations.

For a description of instruments and exposures, and an account of the method of obtaining and reducing the measurements, the reader is referred to this REVIEW for April, 1920, **48**:225, and a note in the REVIEW for November, 1922, **50**:595.

From Table 1 it is seen that direct solar-radiation intensities averaged slightly above the normal values for May at Madison, Wis., and Lincoln, Nebr., and close to normal at Washington, D. C. A noon intensity of 1.49 gram-calories per minute per square centimeter of normal surface measured at Madison on May 9 exceeds the previous maximum intensity for May measured at that station by about 1 per cent.

Table 2 shows that slightly more than the average solar and sky radiation was received on a horizontal surface at Washington and Madison during the month, and slightly less than the average at Lincoln.

Skylight-polarization measurements obtained at Washington on 14 days give a mean of 53 per cent, with a maximum of 67 per cent on the 9th. At Madison, measurements obtained on 6 days give a mean of 61 per cent, with a maximum of 70 per cent on the 17th. These are slightly above average values for May at the respective stations.

TABLE 1.—*Solar radiation intensities during May, 1923.*
[Gram-calories per minute per square centimeter of normal surface.]

Date.	Sun's zenith distance.									
	8 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	Noon.
	75th meridian time.	Air mass.									Local mean solar time.
		A. M.					P. M.				
	e.	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	e.
	mn.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mn.*
Washington, D. C.											
May 1	4.75	0.69	0.82	0.98	1.17	1.38	1.02	.....	.....	.....	5.16
2	5.36	.....	0.63	0.78	1.03	1.17	.....	.....	.....	.....	4.57
3	7.04	.....	.....	.....	1.05	1.25	0.93	0.73	0.58	.....	5.36
4	7.87	0.61	0.69	0.83	1.00	1.25	.....	.....	.....	.....	5.36
7	9.14	.....	.....	.....	.....	.....	.....	0.92	.....	.....	4.95
9	3.45	.....	.....	.....	1.30	1.46	.....	.....	.....	.....	3.81
10	3.30	0.76	0.86	0.99	1.22	.....	.....	.....	.....	.....	3.00
11	6.50	.....	.....	0.84	1.04	1.30	.....	.....	.....	.....	5.16
14	4.75	.....	.....	0.78	0.98	1.20	.....	.....	.....	.....	5.79
17	5.56	.....	0.74	0.90	1.08	1.33	.....	.....	.....	.....	5.36
18	7.57	.....	.....	0.71	0.89	.....	.....	.....	.....	.....	6.76
25	7.04	0.56	0.69	0.84	1.03	1.34	.....	.....	.....	.....	6.02
31	9.47	.....	0.55	0.67	0.88	1.14	.....	.....	.....	.....	9.47
Means	.....	0.66	0.71	0.83	1.06	1.28	(0.98)	(0.82)	(0.58)	.....	.....
Departures	.....	+0.02	−0.02	+0.01	+0.06	−0.02	−0.02	+0.04	−0.12	.....	.....
Madison, Wisconsin.											
May 4	6.76	.....	.....	.....	.....	.....	0.88	.....	.....	.....	7.29
5	4.17	.....	.....	1.07	1.20	.....	.....	.....	.....	.....	4.95
9	3.45	.....	.....	.....	1.33	1.52	.....	.....	.....	.....	3.99
10	3.63	.....	.....	.....	.....	1.28	.....	.....	.....	.....	6.50
17	5.16	.....	.....	.....	1.28	1.42	.....	.....	.....	.....	3.45
25	5.79	.....	.....	.....	1.13	.....	.....	.....	.....	.....	5.79
31	7.04	.....	.....	.....	1.06	.....	.....	.....	.....	.....	6.76
Means	.....	.....	.....	(1.07)	1.20	1.41	(0.88)	.....	.....	.....	.....
Departures	.....	.....	.....	+0.11	+0.08	+0.06	−0.15	.....	.....	.....	.....

TABLE 1.—*Solar radiation intensities during May, 1923*—Continued.

[Gram-calories per minute per square centimeter of normal surface.]

Lincoln, Nebraska.

Date.	Sun's zenith distance.										
	8 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	Noon.
	75th meridian time.	Air mass.									Local mean solar time.
		A. M.					P. M.				
	e.	5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	e.
	mm.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mm.*
May 4	6.27	.....	.....	1.13	1.26	1.51	1.23	1.01	0.88	0.87	4.95
7	9.14	.....	.....	.....	1.14	.....	1.24	1.05	0.93	0.82	7.29
8	3.15	.....	.....	.....	.....	.....	1.31	1.12	0.97	0.85	2.26
9	3.81	0.73	0.95	1.09	1.25	1.43	1.16	0.92	0.78	0.67	2.87
16	4.75	.....	.....	1.04	1.26	.....	.....	.....	.....	.....	4.57
25	7.04	.....	.....	.....	1.18	.....	.....	.....	.....	.....	6.27
26	8.48	.....	0.67	0.82	1.11	1.39	1.19	1.02	0.88	0.74	5.56
Means	.....	(0.73)	(0.81)	1.02	1.20	1.44	1.23	1.02	0.89	0.79	.....
Departures	.....	−0.05	−0.01	+0.05	+0.05	+0.06	+0.12	+0.08	+0.10	+0.05	.....

* Extrapolated.

TABLE 2.—*Solar and sky radiation received on a horizontal surface.*

Week beginning.	Average daily radiation.			Average daily departure for the week.			Excess or deficiency since first of year.		
	Washington.	Madison.	Lincoln.	Washington.	Madison.	Lincoln.	Washington.	Madison.	Lincoln.
	cal.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*
May 7	416	490	666	−63	+22	+174	−2,853	+994	+2,288
14	459	434	495	−29	−44	−14	−3,054	+689	+2,187
21	579	593	464	+86	+113	−44	−2,449	+1,483	+1,878
28	501	516	535	+5	+28	+14	−2,413	+1,677	+1,976

WEATHER OF NORTH AMERICA AND ADJACENT OCEANS.

NORTH ATLANTIC OCEAN.

By F. A. YOUNG.

The average barometric readings for the month were from three-hundredths to one-tenth of an inch below the normal at land stations in Newfoundland, Nova Scotia, the Azores, the West Indies, and on the Atlantic coast of the United States. The average pressure at Valentia, Ireland, was somewhat higher than usual, while at London it was nearly normal.

The number of days on which fog was reported over the western part of the ocean was unusually large, and in the 5-degree square between latitude 40°–45° N., longitude 45°–50° W., it occurred on 19 days, a percentage of 61, as compared with the normal of 35 shown on the Pilot Chart; it was nearly as prevalent over the region between the 50th meridian and the American coast, the percentage ranging from 45 to 52. Fog was also frequently encountered over the middle section of the steamer lanes, while the European coast was comparatively free.

There was a most noticeable falling off in the number of days with winds of gale force as compared with April, and over the major part of the ocean the number was below the normal for May. The greatest number was reported from the 5-degree square between latitude 40°–45° N., longitude 45°–50° W., where it occurred on 5 days. It is a strange coincidence that in this same square the maximum amount of fog was recorded. Gales were reported on 4 days in the square immediately to the south and on from 2 to 3 days in the middle section of the steamer lanes, while they were not reported on more than 1 day in any 5-degree square east of the 30th meridian.

From the 1st to the 3d moderate weather was the rule over the entire ocean, with the exception of a slight disturbance in mid-ocean on the 2d and 3d.

On the 4th there was a fairly well-developed LOW central near latitude 40° N., longitude 62° W., its influence extending over a contracted area between the 37th and 47th parallels. Storm log:

American S. S. *Chickasaw City:*

Gale began on the 3d, wind NNE. Lowest barometer 29.60 inches at 1 a. m. on the 4th, wind NW., 8, in latitude 38° 18′ N., longitude 63° 35′ W. End at 2 p. m. on the 4th, wind W. Highest force of wind 9, NW., shifts NNW.-NW.-N.

On the 5th and 6th, while there were no depressions of any consequence over the ocean, reports were received of moderate gales on the latter date in the central and eastern sections.

On the 7th an area of low pressure covered Newfoundland; this moved slowly eastward, the center being near St. Johns on the 8th, with gales over a restricted area in the southeastern quadrant. Storm log:

French S. S. *Syria:*

Gale began on the 8th, wind S. Lowest barometer 29.78 inches from 2.30 to 7 p. m. on the 8th, wind S., 8, in latitude 39° 35′ N., longitude 46° 20′ W. End on the 8th, wind W. Highest force of wind 8, S.; steady S.

From the 9th to 11th favorable conditions prevailed, with the exception of moderate gales over a limited area in mid-ocean, and on the latter date they were also reported off the British coast.

British S. S. *Parthenia:*

Gale began on the 10th, wind NE. Lowest barometer 29.20 inches at 6.30 p. m. on the 10th, wind NE., 7, in latitude 58° 50′ N., longitude 7° 20′ W. End on the 11th, wind N. Highest force of the wind 8; shifts NE.-N.

Charts VIII and IX show the conditions on the 12th and 13th, respectively, when there was a disturbance in the region between the 35th and 45th parallels and the 40th and 60th meridians, and southwesterly gales were also reported off the American coast between Hatteras and New York. Storm logs:

British S. S. *Bolivian:*

Gale began on the 12th, wind NW. Lowest barometer 29.71 inches at 6 a. m. on the 12th, wind NW., in latitude 40° 16′ N., longitude 51° 04′ W. End on the 13th, wind NW. Highest force of wind 9; steady NW.

American S. S. *Currier:*

Gale began on the 12th, wind SW. Lowest barometer 29.75 inches at 2 p. m. on the 12th, wind SW., 7, in latitude 35° 55′ N., longitude 75° 22′ W. End on the 13th, wind SW., 6. Highest force of wind 8, SW.; steady SW.

On the 14th and 15th nothing unusual was reported, except that one vessel encountered heavy weather in southern waters, as shown by following storm log:

Italian S. S. *Ida Z. O.*

Gale began on the 13th, wind NW. Lowest barometer 29.84 inches at 2 a. m. on the 13th, wind NW., 6, in latitude 32° 20′ N., longitude 43° 30′ W. End on the 15th, wind NW. Highest force of wind 8, NW.; steady NW.